Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) An information-processing apparatus for converting information generated by an information generation unit into packets to be transmitted to a network and for receiving packets from said network, said information-processing apparatus comprising:

a means for performing a TCP/IP conversion process to convert information generated by said information generation unit into a TCP/IP packet group to be transmitted to said network;

a management unit for managing as to whether or not a transmission partner is a target of an FEC (Forward Error Correction) communication, and managing FEC redundancies each provided for a transmission partner connected to said network, and holding a correspondence relationship associating each transmission partner and a corresponding FEC redundancy;

an encoding unit for carrying out an FEC encoding process on said TCP/IP packet group, which has been subjected to said TCP/IP conversion process, by referencing a retrieving and applying an FEC redundancy held in said management unit for a its corresponding transmission partner identified in the TCP/IP packet group; and

a decoding unit for carrying out an FEC decoding process on a packet group received from said network;

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wherein said management unit has a table stored in a memory, an iSCSI packet group is managed corresponding to the transmission partner, and a ~~redundancy cataloged in~~ each FEC redundancy said table ~~for each transmission partner is changed in accordance with~~ is directly related to a state of packet loss determined for said transmission partner for which said ~~redundancy has been cataloged~~ FEC redundancy is associated in said table.

2. (Canceled)

3. (previously presented) An information-processing apparatus according to claim 1, wherein:

said information-processing apparatus is a storage apparatus having a disk drive in said information generation unit;

said means for performing a TCP/IP conversion process to convert information generated by said information generation unit into a TCP/IP packet group is an iSCSI-protocol processing means;

said encoding unit encodes an iSCSI packet group; and

said decoding unit carries out a decoding process on said packet group received from said network in order to produce an iSCSI packet group.

4. (previously presented) An information-processing apparatus according to claim 1, wherein data completing an FEC encoding process in said encoding unit is transmitted to said network as a UDP packet group, and the UDP packet group

received from said network is subjected to an FEC decoding process carried out by said decoding unit.

5. (currently amended) A repeater for transmitting and receiving packet data through a port on a side of a network and a port on a side of a storage apparatus, said repeater comprising:

a transmission management table used for cataloging and managing FEC redundancies each provided for a transmission destination connected to said network, and for holding a correspondence relationship associating each transmission partner and a corresponding FEC redundancy;

a reception management table used for cataloging and managing iSCSI data depending on whether or not a transmission partner is a target of an FEC communication and managing FEC redundancies each provided for a transmission source connected to said network;

an encoding unit for carrying out an FEC encoding process on iSCSI-layer data, which has been generated by a storage apparatus in the form of packets, and providing said data with an FEC redundancy cataloged for associated with a transmission destination by referencing said transmission management table; and

a decoding unit for carrying out an FEC decoding process on packet data, which has been received from said network, by referencing said reception management table in order to restore said iSCSI-layer data.

6. (previously presented) A repeater according to claim 5, wherein:

said transmission management table is a table also used for cataloging an address of each transmission destination capable of carrying out an FEC process;

said reception management table is a table also used for cataloging an address of each transmission source capable of carrying out an FEC process;

if the address of a transmission destination is found to have been cataloged in said transmission management table in reference to said transmission management table, iSCSI data is subjected to said FEC encoding process in said encoding unit and transmitted to said network;

if the address of a transmission destination is found to have not been cataloged in said transmission management table in reference to said transmission management table, iSCSI data is transmitted to said network without being subjected to said FEC encoding process in said encoding unit;

if the address of a transmission source transmitting packet data received from said network is found to have been cataloged in said reception management table in reference to said reception management table, said packet data is subjected to said FEC decoding process in said decoding unit in order to restore said iSCSI data; and

if the address of a transmission source transmitting packet data received from said network is found to have not been cataloged in said reception management table in reference to said reception management table, said packet data is transferred to an iSCSI layer without being subjected to said FEC decoding process.

7. (original) A repeater according to claim 5, further comprising a means for changing information cataloged in said transmission management table and

information cataloged in said reception management table by analyzing contents of a control frame received from said network in order to add or delete an address to or from said transmission management table or said reception management table.

8. (currently amended) A communication method for transmitting data from an apparatus adopting an iSCSI protocol to another apparatus adopting said iSCSI protocol, said communication method comprising:

a first communication mode for transmitting and receiving data in an FEC communication mode;

a second communication mode for transmitting and receiving data in a TCP/IP communication mode;

cataloging iSCSI Names each representing a partner, which serves as a data-communication destination, in a memory and managing said iSCSI Names;

cataloging FEC redundancies each provided for and associated with a data-communication destination in a memory so as to create a correspondence relationship associating each transmission partner and a corresponding FEC redundancy, and managing said FEC redundancies;

forming a judgment as to whether or not a specific iSCSI Name of a specific partner serving as a specific data-communication destination has been cataloged in said memory;

carrying out an FEC process, which is based upon said by retrieving and applying an FEC redundancy cataloged for and associated with said specific data-communication destination in said memory, on data to be transmitted, and transmitting said data completing said FEC process to said specific data-

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communication destination in said first communication mode if an outcome of said judgment indicates that said specific iSCSI Name has been cataloged in said memory; and

transmitting said data to be transmitted to said specific data-communication destination in said second communication mode in a case where an outcome of said judgment indicates that said specific iSCSI Name has not been cataloged in said memory.

9. (original) A communication method according to claim 8, further comprising:

finding a loss ratio of transmitted packets for each data-communication destination and managing said loss ratios; and

changing said redundancy cataloged for a particular data-communication destination in said redundancy memory in accordance with said loss ratio found for said particular data-communication destination.

10. (currently amended) A communication method according to claim 8, further comprising:

cataloging FEC redundancies decoding buffer control information each provided for a data-communication destination in a memory and managing said FEC redundancies decoding buffer control information in an apparatus on a reception side;

forming a judgment as to whether or not the iSCSI Name of a specific

transmission source has been cataloged in said memory in a process to receive

specific data; and

carrying out a restoration process to convert said specific data into iSCSI data

on the basis of said FEC ~~redundancy~~ decoding buffer control information cataloged

for said specific transmission source in said memory if an outcome of said judgment

indicates that the iSCSI Name of said specific transmission source has been

cataloged in said memory.

11. (original) A communication method according to claim 8, further

comprising:

transmitting an ACK to a transmission source in response to transmitted data

if iSCSI data can be restored in an apparatus on a reception side or transmitting no

ACK to a transmission source in response to transmitted data if iSCSI data cannot

be restored in an apparatus on a reception side; and

carrying out an FEC process on the same data as said transmitted data and

retransmitting said data completing said FEC process in said first communication

mode to the same apparatus as said apparatus on said reception side if no ACK is

received by an apparatus serving as said transmission source.

12. (currently amended) A storage system comprising a plurality of storage

apparatus connected to each other by a network, by way of which data is exchanged

among said storage apparatus, each of said storage apparatus comprising:

a disk drive for recording data;

a disk adapter connected to said disk drive;

a cache memory connected to said disk adapter;

a channel adapter connected to said cache memory;

a means for carrying out a conversion process to convert data originated from said disk drive into an iSCSI packet group conforming to a TCP/IP;

a management unit for managing as to whether or not a transmission partner is a target of an FEC (Forward Error Correction) communication and, managing FEC redundancies each provided for a transmission partner, and holding a correspondence relationship associating each transmission partner and a corresponding FEC redundancy;

an encoding unit for carrying out an FEC encoding process on said iSCSI packet group resulting from said conversion process and conforming to said TCP/IP by referencing said retrieving and applying an FEC redundancy held for a its corresponding transmission partner in said management unit; and

a decoding unit for carrying out an FEC decoding process on information included in a packet group received from said network;

wherein in said management unit, an iSCSI packet group is managed corresponding to a transmission partner.

13. (currently amended) A storage system wherein data is exchanged through a network among storage apparatus each comprising: an application layer for recording and processing data; an iSCSI layer for carrying out an SCSI process on data of said application layer; and TCP and IP layers for carrying out a TCP/IP process on data of said iSCSI layer,

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said storage system comprising:

an FEC encoding process layer for carrying out an encoding process to add a redundancy code to data from said iSCSI layer;

a UDP layer for carrying out a UDP process on data completing said encoding process; and

an IP layer for carrying out an IP process on data from said UDP ~~layer~~layer;

wherein said FEC encoding process layer adds said redundancy code with an FEC redundancy retrieved from a table that holds a correspondence relationship associating each transmission partner and a corresponding FEC redundancy.

14. (original) A storage system according to claim 13, further comprising an FEC decoding process layer for decoding data coming from said network, completing said IP process at said IP layer and completing said UDP process at said UDP layer.

15. (original) A storage system according to claim 13, further comprising a means for changing redundancy of a redundant code to a value suitable for a transmission destination at said FEC encoding process layer.

16. (currently amended) A communication method for transmitting data by way of a network from an apparatus adopting an iSCSI protocol to another apparatus adopting said iSCSI protocol, said communication method comprising:

a first communication mode for transmitting and receiving data in an FEC communication mode including an FEC process;

a second communication mode for transmitting and receiving data in a TCP/IP communication mode;

forming a judgment as to whether or not a partner serving as a data communication destination has an iSCSI layer on the basis of an iSCSI Name;

carrying out an FEC process based upon an FEC redundancy provided for a communication partner on data to be transmitted and transmitting the data completing said FEC process to said partner in said first communication mode in a case where an outcome of said judgment indicates that said partner has an iSCSI layer, wherein said FEC redundancy is retrieved from a table holding a correspondence relationship associating each transmission partner and a corresponding FEC redundancy; and

transmitting the data to a communication partner in said second communication mode in a case where an outcome of said judgment indicates that said partner does not have an iSCSI layer.

17. (previously presented) A storage system according to claim 12, wherein:

said conversion means, said management unit, said encoding unit and said decoding unit are accommodated in an FEC conversion adapter; and

said FEC conversion adapter is connected to said channel adapter through an interface.

18. (original) A storage system according to claim 12, wherein said storage system has a duplicate component of each of said disk drive, said disk adapter, said cache memory, said channel adapter and said FEC conversion adapter.

19. (original) A storage system according to claim 12, further comprising a server for management use connected to a network, wherein said server issues commands to add and delete transmission destinations' addresses controlled by said management unit.

20. (original) A repeater according to claim 5, further comprising a table used for cataloging an iSCSI Name of each data transmission destination, wherein an FEC communication is permitted in a transmission of data to a specific data transmission destination only if the iSCSI Name of said specific data transmission destination has been cataloged in said table.